

STATEMENT OF BASIS

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BAQ Engineering Services Division 2600 Bull Street, Columbia, SC 29201

2600 Bull Street, Columbia, SC 29201 Phone: 803-898-4123 Fax: 803-898-4079

Company Name:Santee Cooper Pee Dee Generating StationPermit Writer:Joe EllerPermit Number:1040-0113-CA.1Date:December 7, 2007

DATE APPLICATION RECEIVED: May 31, 2006

FACILITY DESCRIPTION

Please refer to the Statement of Basis named "flo113ca.statement_of_basis" for details about this facility.

PROJECT DESCRIPTION

This document is an addendum to the original statement of basis drafted for the Prevention of Significant Deterioration (PSD) application to construct two new coal-fired boilers at the proposed location named Santee Cooper Pee Generating Station.

A Preliminary Determination for this proposed facility was completed on October 8, 2007, and placed on public notice along with a draft permit and Statement of Basis. During the public comment period, the Bureau of Air Quality realized that an incorrect version of the draft permit was made available for public comment. The basis for calculating mass emission limits was correct for combined boilers; however, a lower factor of 1.33 was intended for individual boiler operation. The original statement of basis contained the following language (in quotations) as the basis; however, the calculated values were not consistent with the intended calculation basis.

"The mass limit is determined by multiplying the maximum heat rate (million Btu/hr) by the BACT limit (lb/million Btu), increased by a factor of 53.3% for each boiler, and specified at the combined mass rate for both boilers. For monitoring of pollutants that do not have CEMS, only the pollutant that has the source test result with the emission rate closest to the limit, percent basis, need be monitored since the other pollutants would automatically show compliance."

The mass emission limits were intended to be based on the proposed BACT limits as established for the combined operation of both boilers. In the case where only one boiler is operating, the mass emissions limits were intended to allow for an additional one-third margin above the BACT limits. The corrected draft permit has lower mass emission limits than the previous draft.

EMISSIONS

This action does not involve any change to estimated emissions.

PERMIT LIMITS

The mass emission limits for the PSD pollutants for each boiler are calculated as follows:

PM (filterable): BACT rate of 0.015 lb/million Btu x 5700 million Btu/hr x 24 hrs x 1 ton/2000 lbs = 1.026 tons/day/boiler Limit for operation of one boiler only = 1.026 x 1.33 = 1.36 tons/day. (Not 2.09 tons/day as stated in original Statement of Basis) Limit for combined boilers = 1.026 x 2 = 2.05 tons/day.

PM (total): BACT rate of 0.018 lb/million Btu x 5700 million Btu/hr x 24 hrs x 1 ton/2000 lbs = 1.231 tons/day/boiler Limit for operation of one boiler only = 1.231 x 1.33 = 1.64 tons/day. (not 2.51 tons/day) Limit for combined boilers = 1.231 x 2 = 2.46 tons/day. (not 3.28 tons/day)

PM10 (filterable): BACT rate of 0.012 lb/million Btu x 5700 million Btu/hr x 24 hrs x 1 ton/2000 lbs = 0.821 tons/day/boiler Limit for operation of one boiler only = $0.821 \times 1.33 = 1.09 \times 1.09 \times 1.67 \times 1.67 \times 1.67 \times 1.69 \times 1$

PM10 (total): BACT rate of 0.018 lb/million Btu x 5700 million Btu/hr x 24 hrs x 1 ton/2000 lbs = 1.231 tons/day/boiler Limit for operation of one boiler only = 1.231 x $1.33 = 1.64 \frac{1.64 \text{ tons/day}}{1.231 \text{ tons/day}}$. (not 2.51 tons/day) Limit for combined boilers = 1.231 x $2 = 2.46 \frac{1.64 \text{ tons/day}}{1.231 \text{ tons/day}}$.

SO2: BACT rate of 0.12 lb/million Btu x 5700 million Btu/hr x 24 hrs x 1 ton/2000 lbs = 8.208 tons/day/boiler Limit for operation of one boiler only = 8.208 x 1.33 = 10.92 tons/day. (not 16.74 tons/day) Limit for combined boilers = 8.208 x 2 = 16.42 tons/day. (not 21.84 tons/day)

NOx: BACT rate of 0.07 lb/million Btu x 5700 million Btu/hr x 24 hrs x 1 ton/2000 lbs = 4.788 tons/day/boiler Limit for operation of one boiler only = 4.788 x $1.33 = \underline{6.37 \text{ tons/day}}$. (not 9.77 tons/day) Limit for combined boilers = 4.788 x $2 = \underline{9.58 \text{ tons/day}}$. (not 12.74 tons/day)



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CO: BACT rate of 0.15 lb/million Btu x 5700 million Btu/hr x 24 hrs x 1 ton/2000 lbs = 10.26 tons/day/boiler Limit for operation of one boiler only = 10.26 x $1.33 = \underline{13.65}$ tons/day. (not 20.93 tons/day) Limit for combined boilers = 10.26 x 2 = 20.52 tons/day. (not 27.30 tons/day)

Lead: BACT rate of 1.91E-05 lb/million Btu x 5700 million Btu/hr x 24 hrs x 1 ton/2000 lbs = 0.0013 tons/day/boiler Limit for operation of one boiler only = 0.0013 x 1.33 = 0.0017 tons/day. (not 0.0028 tons/day) Limit for combined boilers = 0.0013 x 2 = 0.0026 tons/day. (not 0.0036 tons/day)

Fluorides: BACT rate of 3.41E-04 lb/million Btu x 5700 million Btu/hr x 24 hrs x 1 ton/2000 lbs = 0.0233 tons/day/boiler Limit for operation of one boiler only = 0.0233 x 1.33 = 0.031 tons/day. (not 0.048 tons/day)

Limit for combined boilers = 0.0233 x 2 = 0.047 tons/day. (not 0.062 tons/day)

Sulfuric Acid Mist: BACT rate of 0.005 lb/million Btu x 5700 million Btu/hr x 24 hrs x 1 ton/2000 lbs = 0.342 tons/day/boiler Limit for operation of one boiler only = 0.342 x $1.33 = \underline{0.455 \text{ tons/day}}$. (not 0.69 tons/day) Limit for combined boilers = 0.342 x $2 = \underline{0.684 \text{ tons/day}}$. (not 0.90 tons/day)

SUMMARY AND CONCLUSIONS

The calculated mass emission limits determined above shall replace the incorrect limits stated in the original Statement of Basis and in the draft permit (in both the Section II(A) table and in Condition number 35).